

DRAFT Redman Conservation Area

Ten Year Area Management Plan FY 2015-2024



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OVERVIEW

- **Official Area Name:** Redman Conservation Area, #6002
- **Year of Initial Acquisition:** 1959
- **Acreage:** 120 acres
- **County:** Macon
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**

A. Strategic Direction

The Missouri Department of Conservation (the Department) manages Redman Conservation Area (CA) to improve wildlife habitat and increase plant and animal species diversity. Management of this primarily grassland habitat is targeted toward providing suitable habitat for upland wildlife species dependent on native grasslands, and for the proliferation of native plants that are rare in the Northeast Region. The terrestrial resources will continue to be managed by using prescribed burning and chemical treatment of invasive species.

B. Desired Future Condition

The desired future condition of Redman CA is a prairie landscape with woodlands occurring in the drainages.

C. Federal Aid Purpose

This area, or a portion thereof, was acquired with Pittman-Robertson Wildlife Restoration funds to restore and manage wildlife, conserve and restore suitable wildlife habitat and provide public access for hunting or other wildlife-oriented recreation.

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. **Priority Areas:** None

B. **Natural Areas:** None

C. **Other:** Redman CA was originally purchased to support a remnant greater prairie chicken population on the area and in the immediate vicinity. There has not been a prairie chicken sighting in the vicinity since 1991.

II. Important Natural Features and Resources

A. **Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

B. Caves: None

C. Springs: None

III. Existing Infrastructure

- 1 parking lot
- 2 fishless ponds (0.2 acres)
- 7 man-made amphibian and reptile water holes

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interest: Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses maybe acceptable and must be assessed in each specific situation.

C. Easements: None

D. Cultural Resource Findings: No known cultural resources.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: The entire area boundary was checked and posted in February 2011.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

The area is dominated by open grassland which are dissected by two wooded draws. Current area management is targeting an open grassland landscape while trying to limit woody plant invasion of the grassland and increase grassland plant species diversity. Prescribed fire is and will be the most used tool on the area due to the efficiency in which the habitat can be beneficially managed.

Management direction currently focuses on alternating prescribed burns in two, 60-acre blocks on a three year rotation. By implementing this schedule each 60-acre block receives fire every third year. This schedule ensures that the grassland is kept in an early successional stage while constantly provided quality habitat during the rest years. The grassland is dissected by two wooded draws, one on the east side and the other on the west side of the area.

There is currently no agriculture activity on Redman CA. Redman CA is surrounded by production agriculture, both row crop and haying/grazing farms. Due to the small size of the CA and lack of native vegetation in the immediate vicinity, there is no desire to incorporate these practices into our management of the area.

The woodland resources on Redman CA consist of wooded drainages consisting of primarily maple, elm and pin oak. Due to the infeasibility of excluding these acres from the prescribed burn units and the low quality and quantity of the timber resource, the woodlands will continue to be included in the prescribed burn units. The wooded draws will be used for creating cover for upland wildlife through practices such as edge feathering. There are a few very large trees along the west and south boundary line that will be left for den and roost sites for species dependent on such habitats.

Several species of conservation concern were noted as occurring or historically occurring on Redman CA during a review of the heritage database. Further investigation and documentation of these species will be done and current management strategies continued which benefit those species still occurring on the area.

Challenges and Opportunities:

- 1) Maintaining the grassland in an early successional stage and providing quality grassland habitat. Meanwhile, limiting woody plant invasions in grasslands and increasing the diversity of grassland plant species.
- 2) Maintaining woodlands to provide cover for upland wildlife species while limiting woodland encroachment on grasslands.
- 3) Determining presence of species of conservation concern in the area and managing for their benefit.

Management Objective 1: Maintain a frequent burn schedule on Redman CA to promote early successional habitat.

Strategy 1: Conduct prescribed fires on two separate tracts and evaluate plant and wildlife responses to the prescribed fire regime.

Management Objective 2: Reduce the coverage of exotic and undesirable plants on the area through prescribed fire, mechanical methods and herbicide applications.

Strategy 1: Reduce coverage of sericea lespedeza, tall fescue and other undesirable herbaceous plants through an aggressive combination of prescribed fire and herbicide applications.

Strategy 2: Reduce autumn olive and other undesirable woody plants using mechanical treatments and/or herbicide.

Management Objective 3: Manage woodland sites to provide wildlife habitat and limit encroachment into grassland.

Strategy 1: Maintain the current level of woodlands by removing woody encroachment in the grassland.

Strategy 2: Consider edge feathering to promote shrub species to develop along woodland edges for the benefit of wildlife species dependent on them.

Management Objective 4: Maintain appropriate trees to provide additional den and roost sites for appropriate species.

Strategy 1: Protect large trees, particularly those with den cavities or exfoliating bark, from damage during management activities.

Management Objective 5: Survey habitats for species of conservation concern.

Strategy 1: Conduct surveys, using methods appropriate for each suspected species, to determine whether species of conservation concern are still present on Redman CA. Use active searching and auditory surveys.

VI. Aquatic Resource Management Considerations

Aquatic resources are very limited on the area due to its position on the landscape. There are two, one-quarter acre, fishless ponds on Redman CA. These fishless ponds are a valuable resource in this grassland ecosystem due to the fact that they provide habitat for amphibians and reptiles. There are also seven man-made amphibian and reptile water holes initially installed on the area for the reintroduction of a state species of conservation concern in collaboration with a previous research project. These water holes are also fishless and greatly benefit grassland ecosystem amphibians and reptiles and provide a water source to other terrestrial fauna. It is our desire to maintain these aquatic resources on the area.

Challenges and Opportunities:

- 1) Maintaining fishless ponds to provide habitat for amphibians and reptiles.
- 2) Maintaining man-made water holes for amphibians and reptiles.

Management Objective 1: Maintain area ponds and water holes as fishless habitats to promote use for breeding by amphibians and reptiles.

Strategy 1: Visually survey ponds and water holes for fish and prevent them from establishing populations.

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Providing recreational opportunities for the public, including hunting, camping, picnicking and bird watching.
- 2) Informing area users of the area's regulations. Camping is allowed in, and adjacent to the parking lot and by Special Use Permit for groups of 10 or more. Walk-in camping is also allowed, except during firearms deer and turkey seasons. Light public use occurs year-round due to the small size and remote location of the area.

Management Objective 1: Maintain the area to a standard that invites public use.

Strategy 1: Conduct routine maintenance to keep the area inviting for public use.

Management Objective 2: Keep area users informed of area regulations.

Strategy 1: Keep area map and regulations posted on bulletin board in parking lot.

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintaining existing infrastructure.
- 2) Maintaining area boundaries.

Management Objective 1: Maintain area infrastructure at current levels.

Strategy 1: Maintain existing infrastructure in accordance with Department guidelines and at currently identified maintenance levels.

Strategy 2: Annually inspect boundary and repost boundary signs as needed.

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

| | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Terrestrial Resources Management | | | | | | | | | | |
| Objective 1 | | | | | | | | | | |
| Strategy 1 | X | | X | X | | X | X | | X | X |
| Objective 5 | | | | | | | | | | |
| Strategy 1 | X | | | X | X | | | X | X | |

APPENDICES

Area Background:

Redman Conservation Area is 120 acres comprised of primarily native vegetation plantings and small wooded draws. The area was originally purchased and managed to support a remnant prairie chicken population. However, there has not been a prairie chicken sighting in the vicinity since 1991. Land use changes and a lack of available habitat lead to the disappearance of prairie chickens. See Appendix A for historical purchase and management information about the area.

Current Land and Water Types:

| Land/Water Type | Acres | % of Area |
|-----------------|------------|------------|
| Grassland | 100 | 83 |
| Woodland | 20 | 17 |
| Total | 120 | 100 |

References:

Missouri Department of Conservation. (2013). *Conservation atlas database*.

Missouri Department of Conservation. (2013). *Natural Heritage database*.

Missouri Department of Conservation (Primarily Christisen, D. M., Clubine, S. & Rainey, D.). (n.d.). Historical documents: Area annual summary, history and management memorandums.

Maps:

Figure 1: Area Map

Figure 2: Cover Types

Additional Appendices:

Appendix A: History of Redman Wildlife Area

Figure 1: Area Map

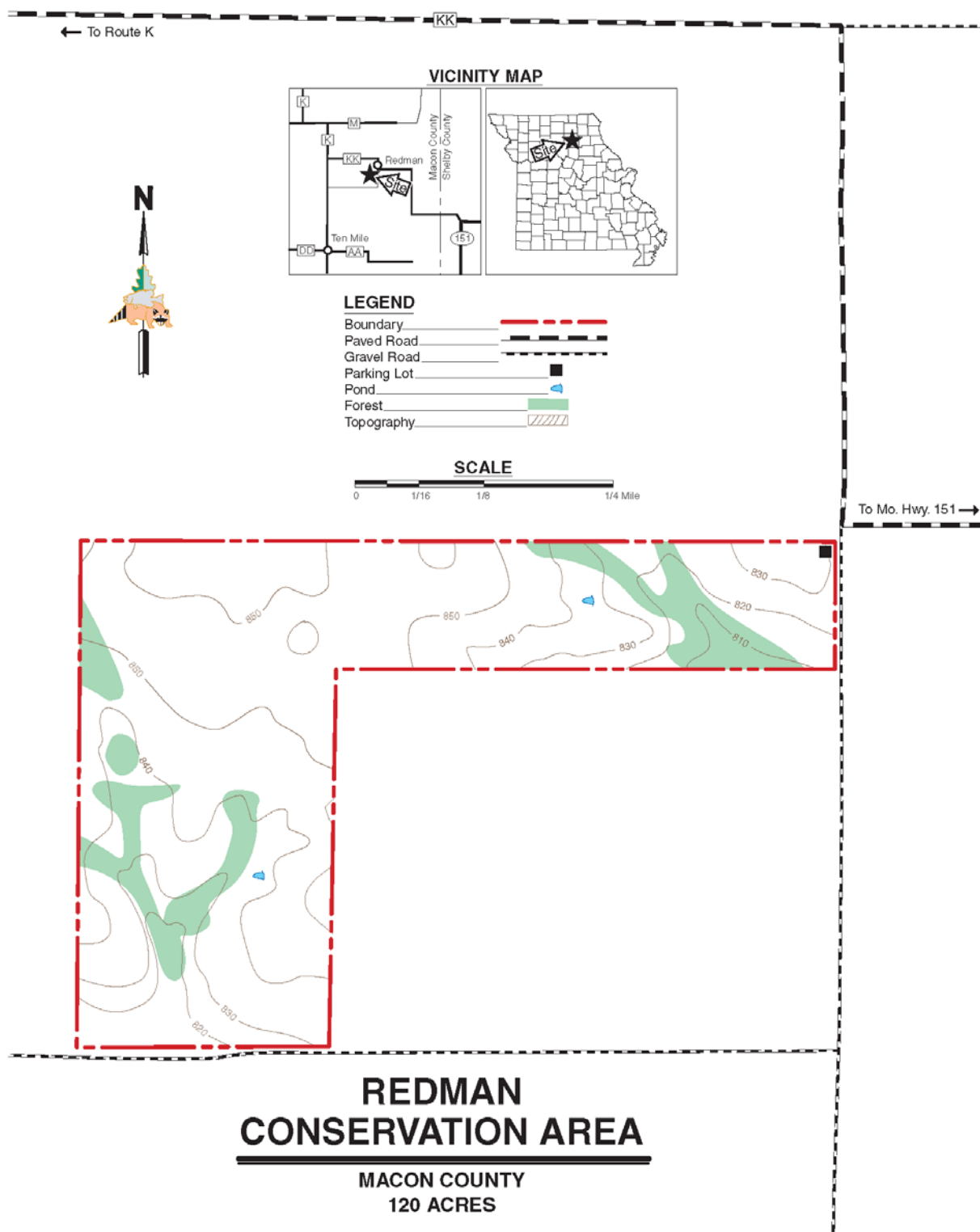


Figure 2: Cover Types



Appendix A: History of the Redman Wildlife Area

Information extracted from History of the Redman Wildlife Area dated March 25, 1980, written by former MDC employee Donald M. Christisen. Current area regulations supersede any of these historic regulations mentioned below.

The 120-acre Redman Wildlife Area is located in northeast Macon County in the Ten Mile locality near the community of Redman. It has a common boundary on the northeast with the Mount Zion Cemetery established in 1909. The property was acquired from Mr. and Mrs. Lee A. Norton (80 acres) and Mr. and Mrs. Otto Mounce (40 acres) in 1959 and 1960 for \$9,500 and \$4,000 respectively.

The Conservation Commission, namely Commissioner Frank P. Briggs, initiated the purchase of these properties to serve as a prairie chicken sanctuary, the first of its kind in the state. Only a few remnant populations existed in north Missouri at the time of the acquisition; probably no more than 25-30 birds were present in the range adjoining this property. The objective in creating this sanctuary was to convert the land from row crops to permanent grass and maintain it in a manner attractive to prairie chickens.

Experimental seedings of grass, mostly warm season natives, continued intermittently through the years with the last seeding of grasses made in 1976. Periodic burning and grazing (bison and cattle) of the area have been the primary tools of management. In the earlier years, some mowing of undesirable weeds was practiced in establishment of grass stands and later on herbicide treatment was used on one occasion. Also some tree and shrub fence rows were cleared to facilitate fence building and create a more open landscape favorable to prairie chickens.

Capital improvements on the area have been minimal. A quarter-acre pond was constructed in 1976 to compliment the smaller pond acquired with the area.

Wildlife had made good use of this area although no formal census has been conducted other than for prairie chicken booming grounds. Prairie chickens began using the area after some 15 years of management. Roost sites were first observed on the area in the winter of 1974-75. An occasional prairie chicken was seen near the area in the mid-1960s. A booming ground was established just over the north line fence in 1976-77-78 but disappeared since. Three hens were seen on the sanctuary in the spring of 1976. More recently, a population decline in the adjoining range off the western edge of the area seems to have been reflected in fewer signs of use. The diversity and quality of vegetative structure has improved considerably since rotational summer grazing was begun in 1975. Generally, cover conditions have been near optimum for prairie chickens for the past five years.

Wild-reared prairie chickens have been released on the Redman Wildlife Area with little lasting effect. There were 12 birds, netted in Pettis County and released on the area in August 1965, and another 5 birds from the same source released in August 1966. One bird was found dead north of the release site about 1 mile. Otherwise, with the exception of a bird which lingered on the adjoining property a few weeks, their ultimate dispersal and fate was unknown.

The second series of releases seemed to have brought better results at least in terms of sightings. Wild-reared birds, 13 from Kansas, were released on the area Feb. 23, 1976, followed by another release of 10 birds Jan. 15, 1977. It appeared these releases were responsible for the establishment of a booming ground just outside the north boundary of Redman in 1976, 1977, and 1978. Unfortunately, no increase in productivity was observed nor did the population increase, except temporarily. It is believed the 3 hens observed on the area likely were from the release as well as the cocks on the new booming ground.

Increased hunting pressure on the Redman Wildlife Area prompted action in designating it a refuge closed to hunting in 1965. Releases of prairie chickens also prompted a Cooperative Wildlife Management Agreement with an adjoining landowner, Arthur C. Claypoole, to close 120 acres to hunting and thereby provide a prairie chicken sanctuary of 240 acres of public and private land in 1976. The refuge designation remains in effect; it has been beneficial in protecting prairie chickens from harassment and disturbances during the fall and winter when the area is used for loafing and roosting. Also, trespass by hunters was a source of irritation to farmers with adjacent lands.

Numerous rabbits and two coveys of quail are regularly supported on the area. Deer frequent it and bed down in the warm season grasses. Coyotes are common as well as a few red foxes. Conservation Agent C.E. Resinger estimated 200-300 rabbits were taken from the area in the winter of 1964-65. A total of 39 rabbits, 2 large coveys of quail and a coyote were observed in mowing 82 acres of the area in February 1974. Approximately 75 prairie chicken roosts were observed in February 1976.

A bird study conducted by Robert M. Skinner, revealed the most common winter residents in 1970-71 to be marsh hawks, rough-legged hawks, short-eared owls, long-eared owls, Lapland longspurs and Smith's longspurs. The spring migrants included Swainson's hawks, golden plovers, savannah sparrows, Leconte's sparrows, vesper sparrows and water pipits. The summer residents were upland sandpipers, bob-o-links, redwinged blackbirds, dickcissels, grasshopper and Henslow's sparrows. Permanent residents were horned larks, eastern and western meadowlarks.

Despite success with grass cover and other wildlife, The Redman Wildlife Area as a prairie chicken sanctuary has had only a very limited effect on the population and survival of this rare bird in the locality. The small size of the area and location at the edge of the traditional range are limitations which optimum cover has not been able to overcome. Habitat deficiencies on private land continue to limit population growth.

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